

Preliminary Amendment  
Serial Number: **10/567,191**  
Attorney Docket No. LAV06002

### **AMENDMENTS TO THE CLAIMS**

The following listing of claims replaces all prior versions and listings of claims in the application.

#### **Listing of Claims:**

1. (Previously presented): A system for assisting the regeneration of depollution means integrated in an exhaust line of a motor vehicle diesel engine, in which the engine is associated with a turbocharger and with common rail feed means for injecting fuel into the cylinders of the engine in at least one post-injection, and adapted to implement, at constant torque, at least two regeneration strategies at a first level and at a second level, depending on different engine operation control parameters, in order to obtain different temperature levels in the exhaust line, the temperature level corresponding to the second level strategy being higher than the temperature level corresponding to the first level, the system including acquisition means for acquiring the temperature level in the exhaust line, comparator means for comparing said temperature level with a safety threshold value for the turbine of the turbocharger so that in the event of said threshold value being exceeded while applying the second level strategy, the feed means are controlled so as to regulate at least one of the engine operation control parameters progressively so as to reduce the temperature level in the exhaust line, and if said temperature level does not drop below the threshold value at the end of a predetermined first time period, the feed means are controlled to switch over to the first level strategy, and if the temperature level in the exhaust line still does not drop below the safety threshold value at the end of a second time period, the feed means are controlled to stop the regeneration strategy.

2. (Currently amended): ~~A-~~The system according to claim 1, wherein the feed means are adapted to implement two successive

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post-injections.

3. (Currently amended) : ~~A-~~The system according to claim 2, wherein during regulation, the feed means are adapted to reduce progressively the flow rate of fuel during the second post-injection.

4. (Currently amended) : ~~A-~~The system according to claim 3, wherein the feed means are adapted to reduce the flow rate of the second post-injection by using a correction factor lying in the range 0 to 1 and determined on the basis of the difference between the temperature level acquired from the exhaust line and the safety threshold value.

5. (Currently amended) : ~~A-~~The system according to claim 4, wherein the correction factor is determined by a PI type regulator having non-linear gain.

6. (Currently amended) : ~~A-~~The system according to claim 1, wherein the temperature level acquisition means comprise at least one temperature sensor.

7. (Currently amended) : ~~A-~~The system according to claim 1, wherein the safety threshold value is calibratable.

8. (Currently amended) : ~~A-~~The system according to claim 1, wherein the depollution means comprise a particle filter.

9. (Currently amended) : ~~A-~~The system according to claim 1, wherein the depollution means comprise a NOx trap.

10. (Currently amended) : ~~A-~~The system according to claim 1, wherein the depollution means comprise a SOx trap.

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11. (Currently amended) : ~~A-~~The system according to claim 1, wherein the depollution means comprise an oxidation catalyst.

12. (Currently amended) : ~~A-~~The system according to claim 1, wherein the fuel includes an additive for being deposited, together with the particles with which it is mixed, on the depollution means in order to facilitate regeneration thereof.

13. (Currently amended) : ~~A-~~The system according to claim 1, wherein the fuel includes an additive forming a NOx trap.